

Date: Tuesday, 12/5/2006 8:20:42 AM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : CONSOLE
 Job Number : 29826
 Estimate Number : 10910
 P.O. Number : N/A Part Number : D33631
 This Issue : 12/5/2006 S.O. No. : N/A Drawing Number : D3363 REV. B1
 Prsht Rev. : NC Project Number : N/A
 First Issue : N/A Type : PURCHASED PARTS Drawing Revision : B1
 Previous Run : 29402 Material : N/A
 Due Date : 12/23/2006 Qty: 10 Um: Each
 Written By :
 Checked & Approved By :
 Comment : Est: B 05.09.09 Remove c/sink rivet holes and add welding stepK
 J/JLM
 Est: C 06.11.15 waterjet EC

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M6061T6S063 6061-T6 .063 Sheet



Comment: Qty.: 2.4150 sf(s)/Unit Total: 24.1500 sf(s)
 6061-T6 .063 thick aluminum Sheet
 Batch: M100285 M 06 12 14

(10)

2.0 WATER JET FLOW WATER JET



Comment: FLOW WATER JET
 1-Cut as per Dwg D3363
 Dwg Rev: B1
 Prog Rev: B1

M 06 12 14

(10)

2-Deburr if necessary

SAN 06.12.23

(10)

3.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

M 06 12 14

(10)

4.0 QC8 SECOND CHECK



Comment: SECOND CHECK

M 06 12 18

(10)

5.0 BRAKE NC NC BRAKE



Comment: NC BRAKE

Deburr SAN 06.12.23
 Form as per Dwg D3363

SB 07/01/23

(10)

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/01/13/

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|----------|------|--|--------------------------------|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| 07/01/13 | 5 | 1 part is scrapped bead out of tolerance operator error | | Scrap & analyze | | | | |
| 07-01-22 | 7.0 | Holes on original parts were no good. Need to be widened 0.020 on each side - outwards | <i>[Signature]</i> 05/01/22 | re-work consoles AS per Attached instructions. e-mail | <i>[Signature]</i> 07/01/25 | <i>[Signature]</i> 07-01-24 | <i>[Signature]</i> 05/01/22 | <i>[Signature]</i> 07-01-22 |
| | | | | | | | | |

NOTE: Date & initial all entries

Date: Tuesday, 12/5/2006 8:20:43 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: CONSOLE

Job Number: 29826

Part Number: D33631

Job Number:



Seq. #:

Machine Or Operation:

Description:

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/01/23

10

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



07-01-24 10 / PD 07-01-24



Comment: LARGE FABRICATION RESOURCE 1

Weld using DT8790 as per Dwg D3363 and QSI 004

HOLD FOR ENG'G APPROVAL

PH

8.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

07-01-25



9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SB 07/01/25

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: CA

SB 07/01/29

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/01/31

Job Completion



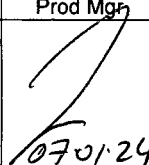
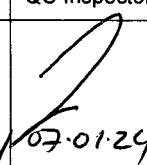
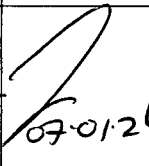
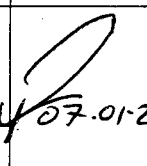
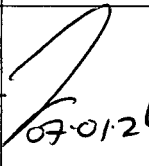
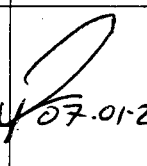
U 07-01-25

POSITIVE RECALL

EFFECTIVE: 07-01-25 AUTH: U

RELEASED: U DATE: 07-21-30

Dart Aerospace Ltd

| W/O: | | WORK ORDER CHANGES | | | | | | |
|----------|------|---|----|----------|-----|---|---|--|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector | |
| 07.01.24 | 7.0 | QC9 needs to be co-signed for weld inspection. <u>Do not</u> pass step 9.0. | | | |  07.01.24 |  07.01.24 | |
| 07.01.24 | 7.1 | Grind welds flush on outside profile / corners. Ensure welds are grinded square. Perm. | FC | 07.01.25 | 10 |  07.01.24 |  07.01.24 | |
| " | | Add to estimate. Perm. Change & draw detail. see Draw placed under review | PH | 07.01.25 | |  07.01.24 |  07.01.24 | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

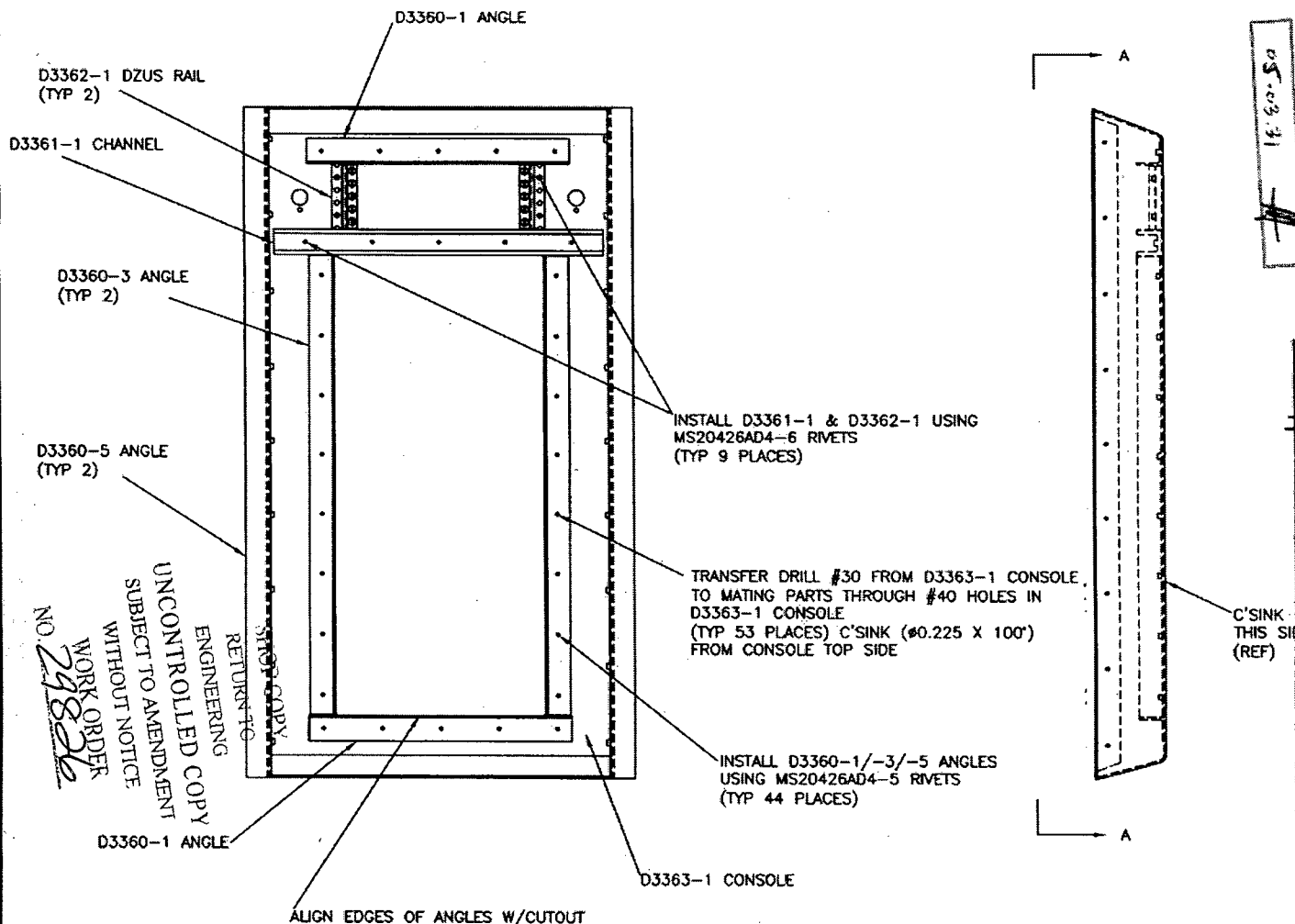
NOTE: Date & initial all entries

DART

RELEASED

05-03-31

| DESIGN | PH | DRAWN BY | PH | DART AEROSPACE LTD | REV. B |
|---------|--------------------|--------------------------------|--------------------|-----------------------------|--------------|
| CHECKED | <i>[Signature]</i> | APPROVED | <i>[Signature]</i> | HAWKESBURY, ONTARIO, CANADA | SHEET 1 OF 3 |
| DATE | 05.03.28 | TITLE | D3363 | CONSOLE ASSEMBLY | SCALE 1:5 |
| A | 04.11.29 | NEW ISSUE | | | |
| B | 05.03.28 | INCREASE WIDTH BY 0.125 | | | |
| B1 | 05.07.38 | CHANGE WIDTH TO 0.430 WAS 0.43 | | | |



PARTS LIST FOR D3363-041 CONSOLE ASSEMBLY

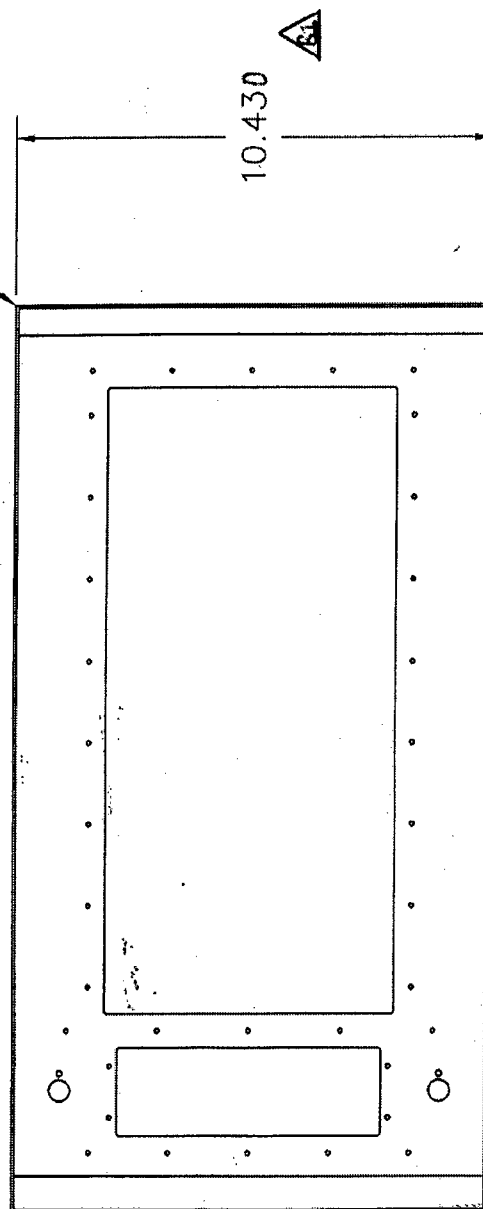
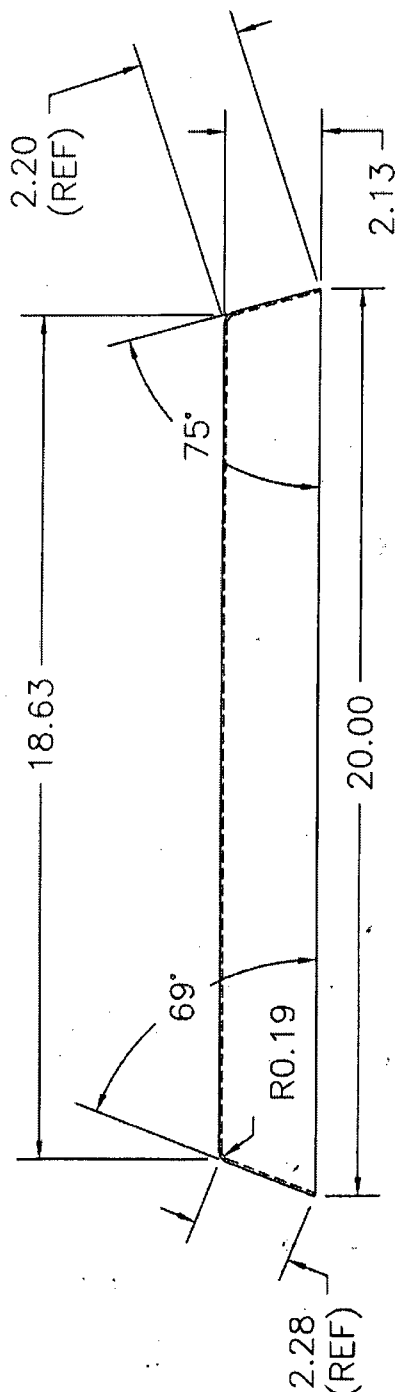
VIEW A-A FROM UNDER CONSOLE ASSEMBLY

D3363-041 CONSOLE ASSEMBLY

- 1) ASSEMBLE IN ACCORDANCE WITH DART QSI 002
- 2) IDENTIFY WITH DART P/N D3363-041 AND B/N BXXXXX USING FINE POINT PERMANENT INK MARKER
- 3) FINISH:ACID ETCH AND ALODINE PER DART QSI 005 4.1



| | | | |
|------------------------|-------------------------|---|------------------------|
| DESIGN PH | DRAWN BY PH | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHECKED [Signature] | APPROVED [Signature] | DRAWING NO. D3363 | REV. B SHEET 2 OF 3 |
| DATE 05.03.28 | | TITLE CONSOLE ASSEMBLY | SCALE 1:4 |



VIEW-1 END DETAIL

RELEASED

05-03-31

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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
29826

D3363-1 CONSOLE

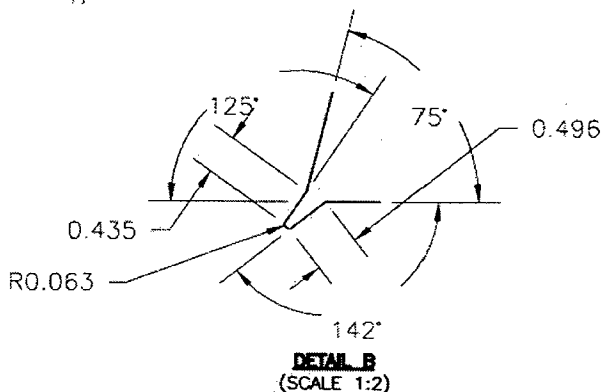
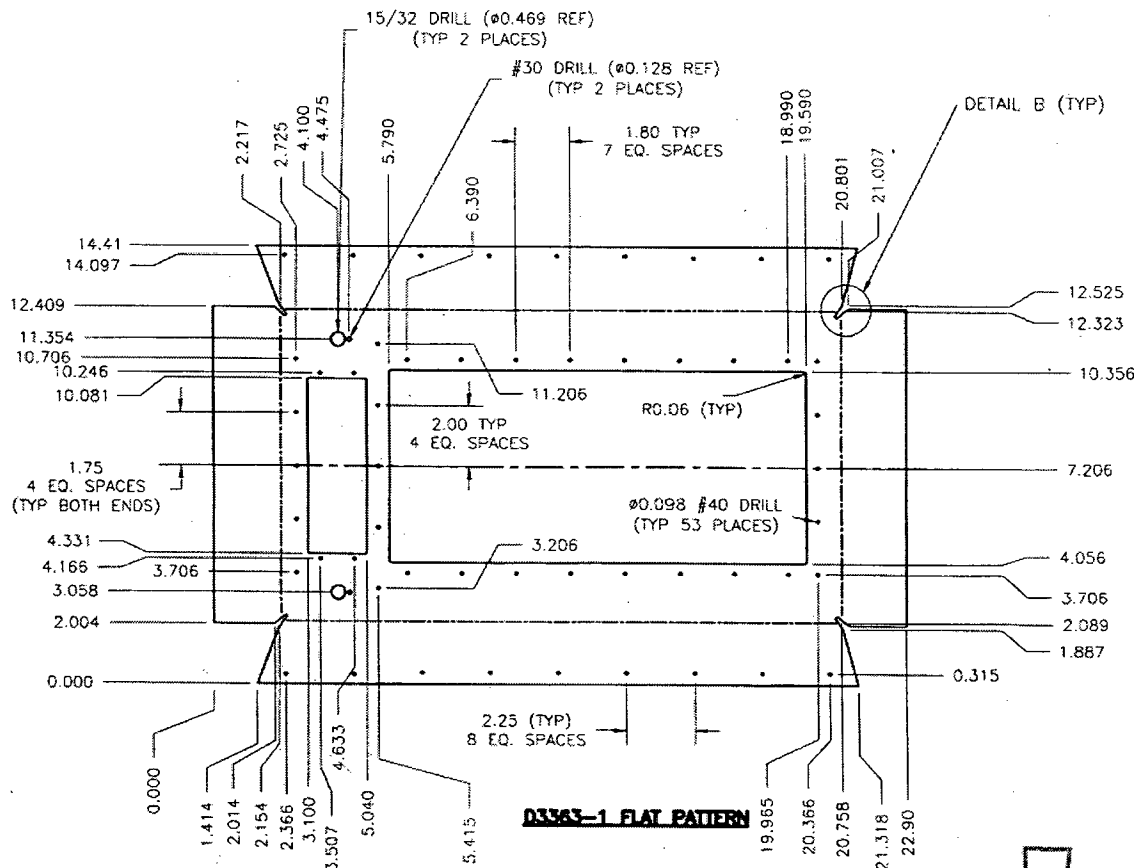
- 1) WELD PER DART QSI 004
- 2) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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DART

| | | | | | |
|---------|----------|----------|----|---|--------------|
| DESIGN | PH | DRAWN BY | PH | DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA | |
| CHECKED | PH | APPROVED | PH | DRAWING NO. | REV. B |
| DATE | 05.03.28 | | | D3363 | SHEET 3 OF 3 |
| | | | | TITLE | SCALE |
| | | | | CONSOLE ASSEMBLY | 1:6 |



RELEASED
05.03.31

D3363-1 CONSOLE (FLAT PATTERN)

- 1) MATERIAL: 6061-T6/T651 ALUMINUM (MATERIAL SPEC: QQ-A-250/11) 0.063 THICK (REF DART SPEC M6061T6S.063)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) PART IS SYMMETRICAL ABOUT CENTERLINE

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WITHOUT NOTICE
WORK ORDER
NO. 29826

| | |
|---------------------------------------|-----------------------------|
| DART AEROSPACE LTD | Work Order: 29826 |
| Description: Console | Part Number: D3363-1 |
| Inspection Dwg: D3363, Rev: B1 | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☒ Prototype

| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|-------------------|-----------------|------------------|--------|--------|------------------------------|----------|
| 14.41 | +/-0.030 | 14.41 | ✓ | | Measuring tape | |
| 22.90 | +/-0.030 | 22.90 | ✓ | | Measuring tape | |
| Ø 0.098 | +/-0.004, 0.001 | 0.099 | ✓ | | vern | |
| Ø 0.128 | +/-0.005, 0.001 | 0.129 | ✓ | | vern | |
| Ø 0.469 | +/-0.006, 0.001 | 0.469 | ✓ | | vern | |
| 4.056 | +/-0.010 | 4.061 | ✓ | | vern | |
| 5.790 | +/-0.010 | 5.796 | ✓ | | vern | |
| 3.100 | +/-0.010 | 3.106 | ✓ | | vern | |
| 5.040 | +/-0.010 | 5.045 | ✓ | | vern | |
| 3.058 | +/-0.010 | 3.063 | ✓ | | vern | |
| 11.354 | +/-0.010 | 11.360 | ✓ | | vern | |
| 4.331 | +/-0.010 | 4.337 | ✓ | | vern | |
| 0.315 | +/-0.010 | 0.319 | ✓ | | vern | |
| 3.706 | +/-0.010 | 3.712 | ✓ | | vern | |
| 10.356 | +/-0.010 | 10.360 | ✓ | | vern | |
| 12.409 | +/-0.010 | 12.415 | ✓ | | vern Height Gauge | |
| 19.500 | +/-0.010 | 19.600 | ✓ | | Measuring tape | |
| | | | | | | |
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| | | |
|----------------------------------|------------------------------|----------------------------|
| Measured by: <i>MM:MM</i> | Audited by: <i>MM</i> | Prototype Approval: |
| Date: 06/12/14 | Date: 06/12/18 | Date: |

| Rev | Date | Change | Revised by | Approved |
|-----|------|-----------|------------|----------|
| A | | New Issue | KJ/JLM | |

L Lacelle

From: S Shahbazian [sshahbazian@dartaero.com]
Sent: January 12, 2007 7:29 AM
To: 'S Shahbazian'; Trepanier, Dale; Murdoch, Jason; Lacelle, Linda; Johnston, Kim; Charbonneau, Eric; Menard, Jean-Luc; Hum, Peter; Shepherd, David
Cc: Beckett, Bill
Subject: RE: Part and drwaing D3363 under review

I am sending this again since some people did not get the e-mail.

Thanks
Serge

From: S Shahbazian [mailto:sshahbazian@dartaero.com]
Sent: January 11, 2007 3:18 PM
To: Trepanier, Dale; Murdoch, Jason; Lacelle, Linda; Johnston, Kim; Charbonneau, Eric; Menard, Jean-Luc; Hum, Peter; Shepherd, David; McDonald, Peggy
Cc: Beckett, Bill
Subject: Part and drwaing D3363 under review

Jason/Dale,

Please put D212-722 Avionics Console Installation on quarantine, since there is dimensional error with the Console D3363. The drawing D3363 should be under review to correct the dimensions. The Installation drawing D212-722 is not effected.

Thanks

Serge Shahbazian
Design Manager
Dart Aerospace Ltd.
Tel: 613-632-3336

Peter Hum

From: David Shepherd [dshepherd@dartaero.com]
Sent: January 22, 2007 11:06 AM
To: 'Peter Hum'
Subject: RE: D3363 avionics console re-work

Your rework scheme is acceptable to me.

David

From: Peter Hum [mailto:phum@dartaero.com]
Sent: Wednesday, January 17, 2007 11:46 AM
To: 'David Shepherd'
Cc: 'S Shahbazian'
Subject: D3363 avionics console re-work

David,

It was brought to the attention of Serge from Tom McBride @ Eagle that the D212-722 Avionics Console we make does not fit the radios. Tom sent us the parts that need to fit into the console.

Production made 10 on the waterjet before we found out about this.

In order to make the radio racks fit, I am proposing the following:

- 1) The DZUS rails that rivet to the top rack are not wide enough. Can we fill the mounting holes with weld and transfer drill an assembled DZUS rail and radio thru the console and then rivet? See attached pictures
- 2) The larger rectangular portion is not wide enough. Can we file the inside edges to allow the better fit. Then we will test fit before riveting using the parts Tom McBride sent us

Can the D3363-041 be re-worked as described above?

Peter

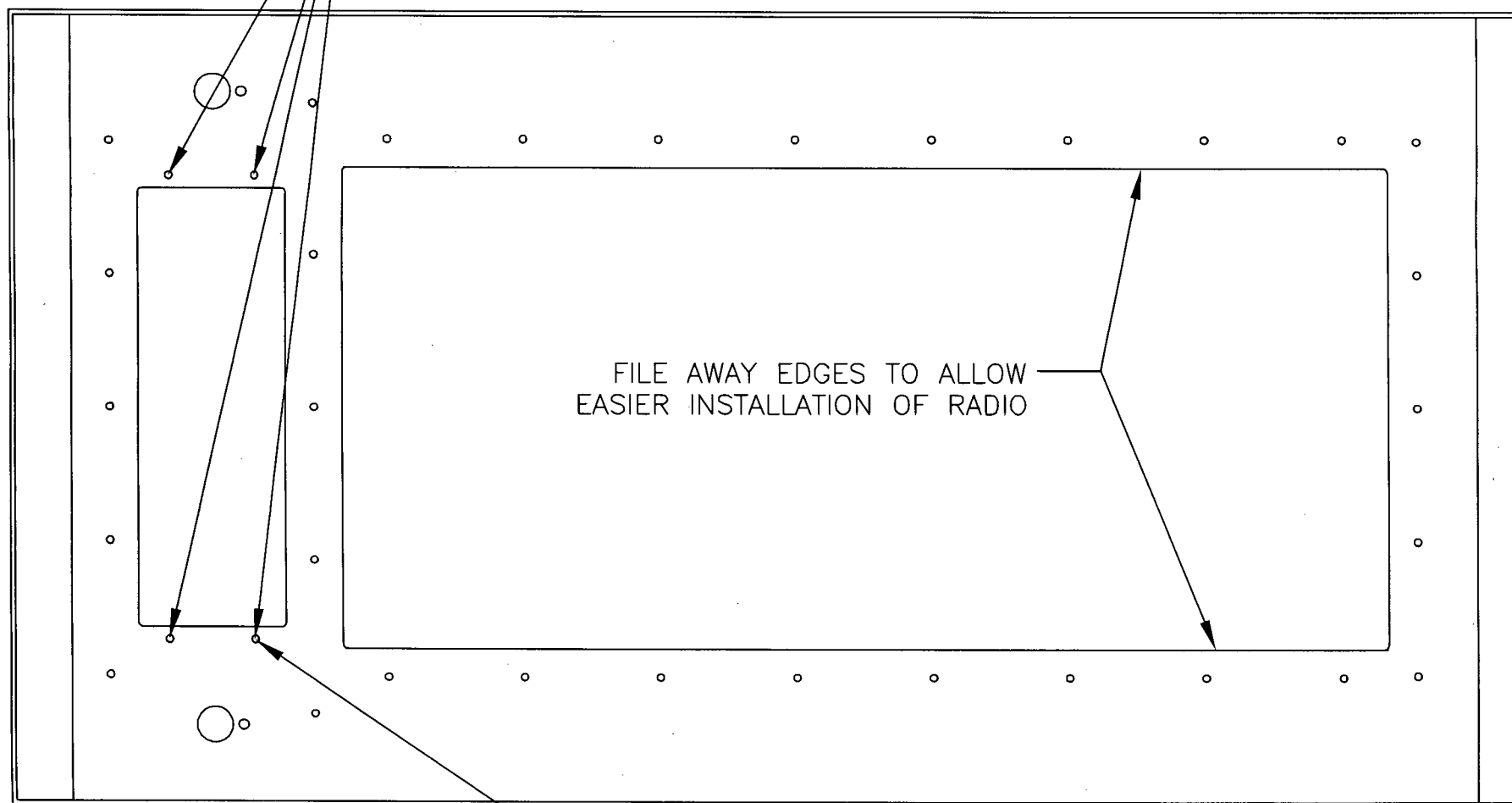
P.S. We will update the flat pattern

--
No virus found in this incoming message.
Checked by AVG Free Edition.
Version: 7.1.410 / Virus Database: 268.16.13/632 - Release Date: 1/16/2007

--
No virus found in this outgoing message.
Checked by AVG Free Edition.
Version: 7.1.410 / Virus Database: 268.17.3/642 - Release Date: 1/20/2007

22/01/2007

- 1) PLUG HOLE WITH WELD
- 2) USING DZUS RAIL ASSEMBLED WITH RADIO MOUNT,
TRANSFER DRILL THRU DZUS RAIL AND CONSOLE
(SEE PHOTOGRAPH)



FILE AWAY EDGES TO ALLOW
EASIER INSTALLATION OF RADIO

DZUS RAIL INSTALLATION LOCATION

